

## ABSTRACT

A method of differentiation from an embryonic stem cell of a primate into a hematopoietic cell, comprising maintaining an embryonic stem cell of a primate under conditions suitable for induction of differentiation into a hematopoietic cell, transplanting the resulting cell into a fetus in a uterus of a pregnant sheep, rearing the fetus, administering a cytokine specific for a primate to a born lamb, and obtaining a hematopoietic cell of a primate from a sheep obtained by rearing the lamb, a method for producing a hematopoietic cell of a primate, a hematopoietic cell obtained by the method, and a method for producing a chimeric sheep which produces a hematopoietic cell of a primate, comprising maintaining an embryonic stem cell of a primate under conditions suitable for induction of differentiation into a hematopoietic cell, and transplanting the resulting cell into a fetus in a uterus of a pregnant sheep.

According to the present invention, it becomes possible to develop a means for treating a disease or a condition requiring construction of a hematopoietic system or an action of a hematopoietic cell.